M 7.3, 59 km ENE of Namie, Japan
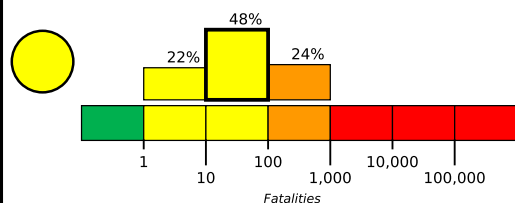
Origin Time: 2022-03-16 14:36:33 UTC (Wed 23:36:33 local)
Location: 37.7302° N 141.5951° E Depth: 59.9 km
FOR TSUNAMI INFORMATION, SEE: tsunami.gov

PAGER
Version 5

Created: 4 weeks, 0 days after earthquake

Estimated Fatalities
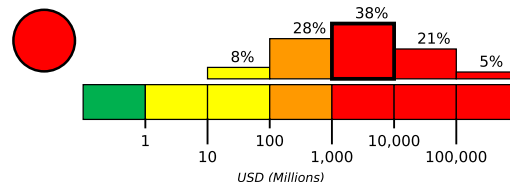
22% · 48% · 24%

1   10   100   1,000   10,000   100,000
Fatalities

Red alert for economic losses. Extensive damage is probable and the disaster is likely widespread. Estimated economic losses are less than 1% of GDP of Japan. Past events with this alert level have required a national or international level response.

Yellow alert for shaking-related fatalities. Some casualties are possible.
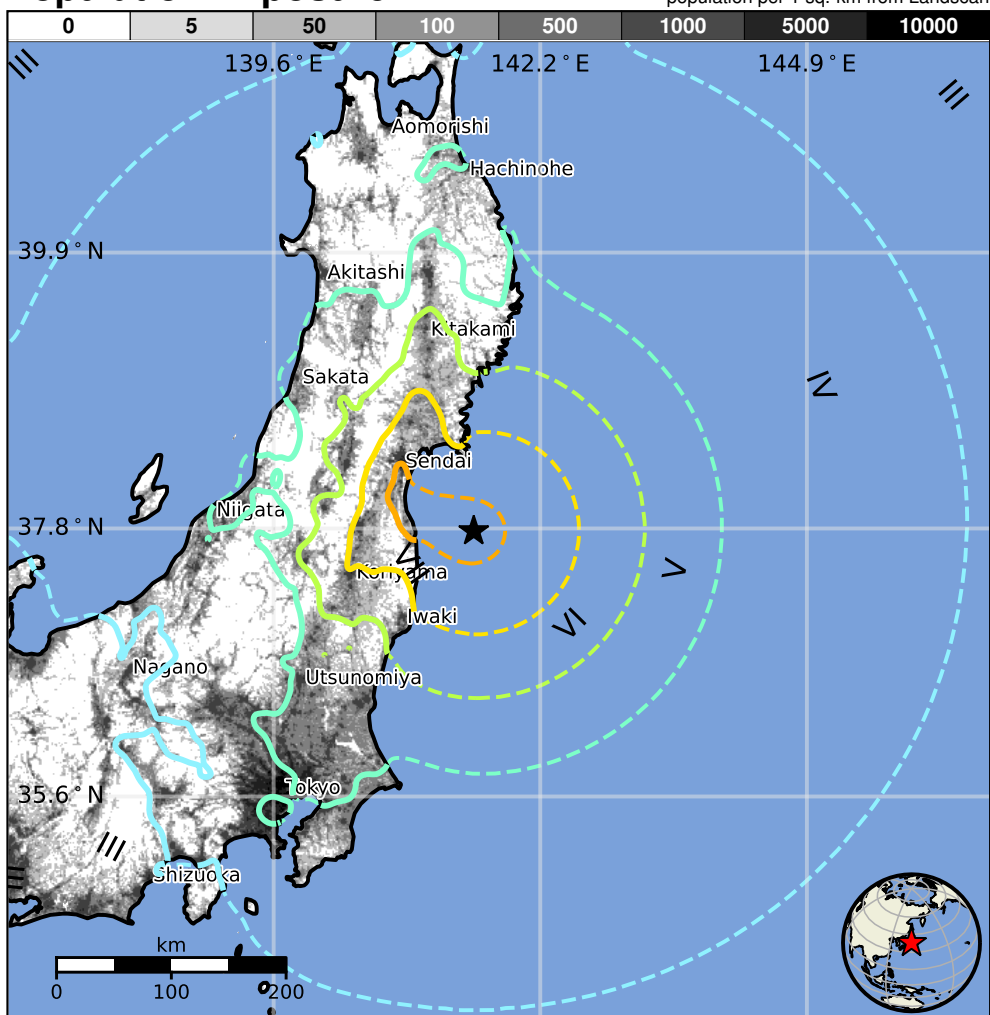
Estimated Economic Losses

8% · 28% · 38% · 21% · 5%

1   10   100   1,000   10,000   100,000
USD (Millions)

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	8,753k*	29,250k	21,021k	2,566k	2,060k	746k	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per 1 sq. km from Landscan

| 0 | 5 | 50 | 100 | 500 | 1000 | 5000 | 10000 |

Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are heavy wood frame and reinforced/confined masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1996-08-10	167	5.9	V(118k)	0
1978-06-12	66	7.6	VIII(1,304k)	22
1983-05-26	373	7.7	VII(174k)	104

Recent earthquakes in this area have caused secondary hazards such as tsunamis, landslides and fires that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
VIII	Kakuda	33k
VIII	Watari	36k
VIII	Marumori	17k
VIII	Iwanuma	42k
VIII	**Sendai**	**1,063k**
VII	Okawara	23k
V	Yokohama	3,574k
V	Chiba	920k
V	Saitama	1,193k
IV	**Tokyo**	**8,337k**
III	**Shizuoka**	**702k**

bold cities appear on map.   (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/us6000h519#pager

Event ID: us6000h519